

-continued

CDR L1:	(SEQ ID NO: 4)
RASESVDNYGISFMN,	
CDR L2:	(SEQ ID NO: 5)
GASNQGS, and	
CDR L3:	(SEQ ID NO: 6)
QQTKEVPWT,	

respectively.

[0012] According to another embodiment, there is provided an antibody or an antigen-binding fragment thereof that binds to O-glycan mucin-type glycoprotein MUC16 comprising three variable heavy domain complementarity determining regions (CDR)(CDR H1, H2 and H3), wherein the CDR H1, H2 and H3 comprise an amino acid sequence comprising:

CDR H1:	(SEQ ID NO: 1)
GFTFSTF,	
CDR H2:	(SEQ ID NO: 2)
SSGSST, and	
CDR H3:	(SEQ ID NO: 3)
SGYDYDPIYYALDY,	

respectively.

[0013] According to another embodiment, there is provided an antibody or an antigen-binding fragment thereof that binds to O-glycan mucin-type glycoprotein MUC16 comprising three variable light domain complementarity determining regions (CDR)(CDR L1, L2 and L3), wherein the CDR L1, L2, and L3 comprise an amino acid sequence comprising:

CDR L1:	(SEQ ID NO: 4)
RASESVDNYGISFMN,	
CDR L2:	(SEQ ID NO: 5)
GASNQGS, and	
CDR L3:	(SEQ ID NO: 6)
QQTKEVPWT,	

respectively.

[0014] The antibody or antigen binding fragment of the present invention may further comprise four variable heavy domain framework regions (HFR)(HFR 1, 2, 3 and 4), wherein the HFR 1, 2, 3, and 4 comprise an amino acid sequence comprising:

HFR 1:	(SEQ ID NO: 7)
EVQLVESGGGLVQPGGSRKLSACAAS,	

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HFR 2:	(SEQ ID NO: 8)
GMHWVRQAPEKGLEWVAYI,	
HFR 3:	(SEQ ID NO: 9)
IYYGDTLQGRFIISRDNPKNTLFLQMTSLRSEDTAMYCAR, and	
HFR 4:	(SEQ ID NO: 10)
WGQGTSVTVSS.	

[0015] The antibody or antigen binding fragment thereof of the present invention may further comprise four variable light domain framework regions (LFR)(LFR 1, 2, 3 and 4), wherein the LFR 1, 2, 3, and 4 comprise an amino acid sequence comprising:

LFR 1:	(SEQ ID NO: 11)
DIVLTQSPASLAvgQRATISC,	
LFR 2:	(SEQ ID NO: 12)
WFQQKPGHPPKLLIY,	
LFR 3:	(SEQ ID NO: 13)
GVPARFSGSGSGTDFLSNIHPMEEDDAAMYFC, and	
LFR 4:	(SEQ ID NO: 14)
PGGGTKVEIKR.	

[0016] The antibody or antigen binding fragment thereof of the present invention may further comprise a variable heavy domain (V_H) comprising amino acid sequence comprising:

(SEQ ID NO: 15)
EVQLVESGGGLVQPGGSRKLSACAASGFTFSTFGMHVVVRQAPEKGL EWVAYISSLGQGRFIISRDNPKNTLFLQMTSLRSEDT AMYYCARSGYDYDPIYYALDYWGQGTSVTVSS.

[0017] The antibody or antigen binding fragment thereof of the present invention may further comprise a variable light domain (V_L) comprising amino acid sequence comprising:

(SEQ ID NO: 16)
DIVLTQSPASLAvgQRATISCRASESVDNYGISFMNWFQQKPGH PPKLLIYGASNQGSGVPARFSGSGSGTDFLSNIHPMEEDDAAMYFC QQTKEVPWTFGGGTKVEIKR.

[0018] The antibody or antigen binding fragment thereof of the present invention may further comprise a variable heavy domain (V_H) comprising amino acid sequence comprising: